

Chapter 2

Designing Our Future

Community pride prevails in Wake Forest. It's been that way for a long time. The history of the community is intertwined with good location and transportation, but it's the people who have made the real difference. To provide context, transportation typically is considered a means to an end. In other words, it's a necessity but not what the community is all about. With this philosophy firmly embedded, the citizens of Wake Forest have worked extensively to define and design their future. This chapter begins with a summary of the current effort to update the *Community Plan*, followed by a review of various planning efforts in the Town.

Wake Forest Community Plan

Growth in Wake Forest in the last 20 years has created numerous opportunities for long-time residents and newcomers. Growth has introduced to the area new businesses, new shopping opportunities, more jobs, and more ways to relax. But growth also has placed new demands on roads, parks and open space, utilities, and municipal services. The Wake Forest Community Plan, led by a Steering Committee of 11 citizens, aims to guide difficult decisions about the Town's future. From January 2007 to September 2009, the Community Plan Steering Committee met frequently to review, revise, and refine draft policy chapters.

Adopted September 15, 2009, the policies proposed in 24 draft chapters will become the officially adopted positions of the Town of Wake Forest government. The 24 policy chapters are grouped into 5 major headings:

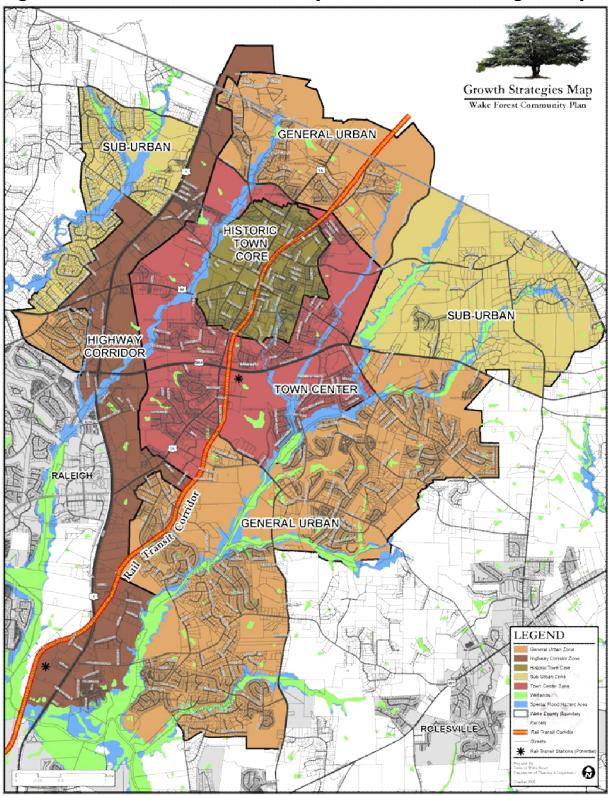
- Town Areas
- Town Transportation
- Town Appearance
- Growth Management
- Quality of Life

In January 2009, the draft Growth Strategies Map and Action Agenda were presented at a public open house. The Growth Strategies Map (**Figure 2.1**) is a visual tool that identifies growth areas where various forms of development and redevelopment would best occur and where natural and cultural resources should be conserved. The Action Agenda is a to-do-list of actions to support the Vision Statements and Policies.

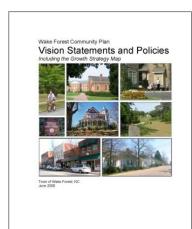




Figure 2.1 – Wake Forest Community Plan – Growth Strategies Map



 $\underline{Source} \hbox{:}\ \textit{Wake Forest Community Plan}$



Vision Statements

The vision for the *Wake Forest Community Plan* was developed based on public feedback, discussions with area stakeholders, and input by the advisory committee. Vision statements were developed for 15 categories and provide a clear picture of where the Town of Wake Forest would like to be in the year 2025 (plan horizon year). The vision statements are written as if now is 2025 and we are looking back at what has transpired as a result of actions identified in the *Community Plan*. For the purposes of the *Wake Forest Transportation Plan Update*, transportation-related ideas are underlined for emphasis.

- 1. Small Town Character, Attractive Appearance
- 2. Vibrant, Revitalized Downtown
- 3. Well Planned and Timed Infrastructure
- 4. Growth That Pays its Own Way
- 5. Efficient Multi-Modal Transportation System
- 6. Walkable and Bikeable Community
- 7. Open Space and Environmental Quality
- 8. Expanded Park and Recreation System
- Neighborhood Schools and Lifelong Learning
- 10. Balanced, Compatible Commercial Development
- 11. Affordable Housing and Quality Neighborhoods
- 12. Support for Arts and Culture
- 13. Better Jobs, Larger Tax Base, Local Businesses
- 14. Community Dedicated to Public Safety
- 15. Leadership, Communication, and Involvement



Vision Statement 1 — Small Town Character, Attractive Appearance

Wake Forest has kept its small town feeling and identity, while continuing to grow. Attractive, <u>walkable neighborhoods</u>, a thriving historic downtown, excellent community services, and an outstanding quality of life have made Wake Forest among the most desirable locations in the Triangle region. Streets in Wake Forest exude a welcoming, small town charm—overarching street trees, lush landscaping, understated signage, and wide, shaded sidewalks combine to create a truly inviting community character. Even road signs and traffic signals exhibit a quality design. Greenery is



everywhere. Small parks and natural areas are within walking distance of most parts of town. Office and retail <u>parking lots</u>, <u>once viewed as "seas of asphalt"</u>, <u>are now tree-shaded and landscaped</u>. Wake Forest has minimized "anywhere USA" development. Instead, buildings, old and new, honor the 100-year-plus heritage of the community. New two and three story buildings are finished in wood, brick and other traditional materials, and relate well to the street and their surroundings.

Vision Statement 2 — Vibrant, Revitalized Downtown

Wake Forest has a healthy, vibrant downtown with a unique mix of restaurants, shops, offices, entertainment and housing. Downtown streets are filled with people of all ages day and night, drawn by the historic character and beauty of the area, the human scale of its buildings and public spaces and a diverse offering of special concerts, festivals and cultural events. Storefronts and sidewalks exhibit a colorful, inviting mixture of merchandise, flower-filled planters, benches and other amenities. Additional parking is provided on the interior of blocks or at perimeter parking lots, so as not to detract from the tightly woven, pedestrian character of the area. Downtown buildings, new and old, have retained and respected the modest architectural scale and design detail that is so much a part of the heritage of Wake Forest. An upgraded Farmer's Market has found a permanent home and a full service grocery store provides convenient shopping for the increasing numbers of

downtown area residents. The Renaissance Plan for the heart of Wake



Forest has become a reality.

The Town has planned ahead for necessary infrastructure, including adequate roads, water, sewer, schools, open space and greenways, sidewalks, and drainage. These services must be in place prior to the occupancy of the new development they serve. Infrastructure has, in many cases, been strategically employed to encourage development where it can best be accommodated. Advanced planning has allowed future school and park sites to be located and acquired ahead of their need. Planned highway and transit corridors have been identified to ensure their protection during the development process. Similarly, future greenway corridors have been mapped so that they may be incorporated into the design of new developments. An area-wide stormwater management plan has anticipated necessary drainage and retention facilities as development has occurred.

Vision Statement 4 — Growth That Pays its Own Way

Growth and development pays its own way in Wake Forest. Impact fees and infrastructure improvements, paid for as part of the development process, have been successful in offsetting the costs of additional schools, fire stations, parks and roads brought about by growth. This has lessened reliance upon existing property tax payers to finance the growth-induced expansions of these facilities. By encouraging efficient development patterns, Wake Forest has continued to deliver quality municipal services for a tax rate below regional averages. In addition, compatible commercial and light industrial development have continued to expand the town's non-residential tax base, helping to offset the costs of town services associated with new residential growth.

Vision Statement 5 — Efficient, Multi-Modal Transportation System



The Town of Wake Forest has worked proactively with the State DOT toward a balanced, efficient, multi-modal transportation system. Enhanced planning and technological advances in traffic management have resulted in a more efficient system of major and minor thoroughfares. US-1 and 1A have especially benefited and are better able to serve patrons of businesses along these routes as well as commuters. A new area-wide mass transit system serves Wake Forest, providing a stress free commute to and from Raleigh and the Research Triangle Park (RTP). The new transit service has been effective in helping to keep traffic counts and congestion below previously projected levels. The Town's policies on compact growth have reduced automobile dependency; compared to other communities, many residents of Wake Forest are able to walk, bike, or take the bus to most daily activities.

Vision Statement 6 — Walkable and Bikeable Community

Wake Forest continues to work toward becoming a very walkable and bikeable community. Mixed use developments encourage walking from home to work, shopping and transit services. New streets, as well as improvements to existing streets, are designed for multiple users (motorists, bicyclists, and pedestrians) –according to the level of traffic intended. Most streets have sidewalks on both sides; many larger streets have bike lanes. Designated crosswalks are evident throughout Wake Forest, but especially in the downtown area. In general, there is a high level of connectivity between neighborhoods and developments by a well-integrated network of streets, sidewalks, bikeways, walking trails, and greenway trails. This continuous system provides for a multitude of driving, walking, bicycling and transit alternatives. Cul de sacs are employed sparingly, in favor of fully connected neighborhood streets.



Vision Statement 7 — Open Space and Environmental Quality

In managing its growth, Wake Forest has worked to preserve open space and minimize adverse impacts to the region's air and water quality. The Town's walkable neighborhoods and nearby services are designed to create less traffic congestion and require shorter commutes. Streams and drainage ways passing through Wake Forest receive less storm water runoff and pollution due, in part, to policies on dedicated open space, tree preservation, landscaped parking areas, compact two and three story buildings, and vegetated buffer strips along streams and roadsides. Infill development and the adaptive reuse of vacant buildings has reduced the need for land clearing and sprawl. Solid waste levels have been substantially reduced through good participation in community-wide recycling efforts.

Vision Statement 8 — Expanded Park and Recreation System

As the community has grown, Wake Forest has steadily added to its system of parks and open space. Many smaller parks have been created through the Town's routine development approval process. Some larger park areas have come about through advanced planning and property acquisition by the Town. An extensive system of greenway trails, primarily adjoining area streams, is enjoyed by hikers, bicyclists, and others. These greenways also serve as natural corridors for the movement of wildlife in Wake Forest. The Reservoir has been protected and enhanced as an outstanding outdoor recreation area with walking paths, picnic areas and other low impact recreation facilities. A major new community recreation center has been completed, featuring an excellent indoor swimming pool.



Vision Statement 9 — Neighborhood Schools and Lifelong Learning

The Town and Wake County Schools have worked cooperatively to plan for schools well in advance of growth to avoid overcrowding and the need for mobile classrooms or constant redistricting. Traditional school buildings, whether new or rehabilitated, are located and designed to serve and be accessible to the neighborhoods around them. Rather than functioning as single purpose "factories to educate children", schools in Wake Forest serve as true neighborhood centers, providing space for community gatherings, recreational events and other functions. Increased diversity within the Town's neighborhoods has reduced the need for bussing to assure social and economic diversity in the schools. In addition, a new, large, state of the art library located at the center of the community serves as a flagship for education in Wake Forest, where an attitude of life long learning has become second nature to most residents of the town.

Vision Statement 10 — Balanced, Compatible Commercial Development

Town officials have navigated a careful course, balancing the need for sustained economic development against the threats to the community from over-commercialization. Small, locally owned shops and restaurants have been favored over big box retailers, chain stores, and "asphalt intensive" shopping centers. Various incentives have been employed, including a zoning and regulatory environment conducive to small business.

Vision Statement 11 — Affordable Housing and Quality Neighborhoods

Wake Forest neighborhoods display a wide variety of housing types and values, including attractive, affordable housing in many forms and locations. New and old neighborhoods alike are attractive and well maintained, having benefited from the town's shared economic

prosperity, and overall quality of life. Walkable, mixed use neighborhoods are favored over automobile-dependent, cookie-cutter subdivisions and gated communities. An open system of pedestrian and bicycle friendly streets work together with a network of greenways to connect neighborhoods with the rest of the town. Most residential areas are convenient to neighborhood services, as well as public transit.



Vision Statement 12 — Support for Arts and Culture

Wake Forest has emerged as a destination for arts and culture in the Triangle area. Appreciation for the arts and culture begins with value placed on the unique heritage of the town, exemplified by the preservation of historic buildings and landmarks throughout the community. Public art graces many public spaces. Cultural activities include a broad selection of traditional and contemporary art forms, festivals, fairs, concerts, plays, seminars, and cross-cultural events. Young and old, as well as people from many ethnic backgrounds, are drawn to a constantly changing array of indoor and outdoor events. All of these activities are facilitated by the addition of a new performing and cultural arts center of outstanding design and utility.



Vision Statement 13 — Better Jobs, Larger Tax Base, Local Businesses

Wake Forest is a community dedicated to the creation and prosperity of small businesses. As a result, Wake Forest's business sector has seen steady growth and diversification. New and expanding businesses, as well as some post-industrial industry, have provided for a favorable tax base, holding property taxes down. Those who wish to make Wake Forest their permanent home can find well-paid, lifelong career opportunities without having to leave the community. While workers in services, retail trade and some types of manufacturing continue to be an important part of the local economy, other kinds of work have expanded, including health care, information services, and professional and technical services. A significant tourism base has taken root, as visitors are drawn by the preservation and enhancement of Wake Forest's historic, pedestrian-oriented, small town charm.

Vision Statement 14 — Community Dedicated to Public Safety

Wake Forest is a community of neighbors, business owners, police, firemen and other public safety personnel committed to working together for a safe and secure town. Highly visible police officers may be seen on a regular beat, oftentimes on foot or bicycle, getting to know the neighborhood kids, and their parents. Fire fighters are out in the community more than ever, teaching fire safety in schools and conducting courtesy fire inspections of homes and businesses. Our citizens and our public safety officers continue to support a safe and secure community free of drugs, gangs, vandalism, violence and crime.

Vision Statement 15 — Leadership, Communication, and Involvement

Residents of Wake Forest show a keen interest in the affairs of their town government. There is a can-do spirit driven by civic pride and revealed through broad community involvement. The Town Board and various Town committees have no shortage of interested, qualified people willing to serve. Area citizens are heavily involved in civic clubs and organizations; volunteerism is a constant source of energy as it is poured into the institutions and organizations that work to improve the community. Town Commissioners routinely seek the views of their constituents on important decisions through personal contacts as well as enhanced information sharing and technology. A renewed focus on timely, effective communication between town government and town residents has greatly enhanced decision making in Wake Forest. Intergovernmental cooperation among local governments and state government agencies has done much to improve regional planning throughout Wake County.



Public Participation and Input

The *Wake Forest Community Plan* included many avenues for public participation and input in order to develop a plan that genuinely reflects the attitudes and viewpoints of the citizen-base as a whole. The outcome of the public participation for the Community Plan is relevant to the planning process of the *Wake Forest Transportation Plan Update*.

Ranked Guiding Principles

The guiding principles were framed by citizens in terms of their "likes and dislikes" and then ranked as part of the *Wake Forest Community Plan*. The top picks for "desired future" and "unwanted future" reveal the community's desire for a proactive approach to transportation, ensuring the efficient implementation of a multimodal transportation network.

Desired Future (in ranked order)

- 1. Vibrant, Revitalized Downtown
- 2. Efficient, Walkable, Bikeable Transportation System
- 3. Small Town Character, Attractive Appearance

Unwanted Future (in ranked order)

- 1. Inadequate Transportation Not Keeping Up
- 2. Incompatible Commercial Development
- 3. Community Character and Identity Lost

Other Comments

Multimodal Considerations

Citizens suggested ways to define an efficient, diverse transportation system: high speed passenger rail, regional public transit, mass transit-trains, light rail, buses, sidewalks, greenways, crosswalks, bike lanes on big roads, commuter rail, vans, and rideshares. Destinations desired by public transit include Raleigh Durham Airport, Downtown Raleigh, Triangle Town Center Mall, events, and the rest of the Triangle region.

Roadway Considerations

Citizens offered the following list of roads to be widened or improved:

- US 1 (close driveways on US 1)
- South Main Street
- Falls of Neuse Road
- Rogers Road over Smith Creek
- Heritage Lake Road
- Ligon Mill Road
- Forestville Road
- Burlington Mills Road



Most of these roads have been or are slated to be widened subject to the availability of funds. Each road is a state facility and all are listed on the regional Long-Range Transportation Plan, indicating some level of agreement that improvements are needed.

Land Use, Transportation, and Urban Design Considerations

Citizens' dislikes most often had to do with infrastructure, specifically transportation, not keeping up with the pace of land development.

Other Planning Studies

Given the influx of planning efforts in the last several years, it follows that the *Wake Forest Transportation Plan Update* should be coordinated closely with other state, regional, county, and local plans and/or policies that impact planning efforts within Wake Forest. This section summarizes a general review of plans prepared within the region and highlights issues, policies, and/or directives that may influence potential recommendations for the *Plan Update*. Studies and reports reviewed include the following.

- Wake Forest Open Space and Greenways Plan (2009)
- Wake Forest Pedestrian Plan (2006)
- Wake Forest Bicycle Plan (2008)
- NC Transportation Improvement Program 2009-2015
- Metropolitan Transportation Improvement Program
- Metropolitan 2035 Long-Range Transportation Plan
- Special Transit Advisory Commission (STAC) Plan
- Southeast High Speed Rail Initiative (2007)
- US 1 Corridor Study (2006)
- Wake Forest Capital Improvement Program (CIP)
- Wake County (unincorporated areas) Transportation Plan (2003)
- Raleigh Comprehensive Plan (2009)
- Imagine Rolesville Transportation Plan (2002)
- Franklin County Comprehensive Transportation Plan (ongoing)

Overlapping Recommendations

Several recommendations in the Pedestrian Plan, Bicycle Plan, and Open Space & Greenways Plan overlap. These trends are discussed below, some of which already are being implemented by the Town.

<u>Developer Responsibility</u>: Nearly all of the plans cite the need to strengthen policies that require or encourage developers to increase connectivity between new development and surrounding destinations:

- "It is recommended that the Town establish a program to work with developers and homeowners to ensure that greenways are built, and that a suitable agreement for both parties is reached which guarantees long-term maintenance and security responsibilities." (Town of Wake Forest Bicycle Plan, 2008, 3-11)
- "Local ordinances should be amended to require pedestrian facilities be built as part of a subdivision project to be extended beyond the limits of the subdivision boundaries to connect to nearby trip attractors and developments" (Town of Wake Forest Pedestrian Plan, Nov. 2006, 6.3.1)

<u>Encouragement and Education Programs</u>: Another aspect of developing and maintaining a successful network of greenspace is public support. While residents of Wake Forest have expressed a strong desire for more open spaces and greenways, various programs can contribute to increasing awareness and support of greenways and their many benefits. Some commonly cited programs and policies include:

- Safe Routes to School programs
- Regularly scheduled bicycle- and pedestrian-related events with promotions, contests, and/or education programs (annual or monthly, or for designated days, weeks, or months throughout the year)
- Publish and distribute a brochure with maps of bicycle and pedestrian routes, safety tips, event schedules, etc.
- Environmental education and interpretive facilities

Increased Connectivity: Connectivity represents good policy that encourages access between neighborhoods and to open spaces and other destinations.

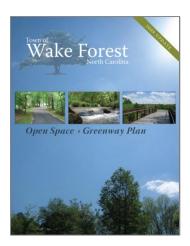
- According to the Bicycle Plan Survey, all of the respondents indicated they would like to see more greenways in town, specifically:
 - Between neighborhoods;
 - o From neighborhoods to downtown, parks, and schools; and
 - As connections to the Raleigh greenway system and the Falls Lake Greenways.
- According to the Pedestrian Plan, concepts derived from the interests of the Town, steering committee, and public include:
 - Pedestrians should be able to access Downtown Wake Forest from all parts of the community.



Wake Forest Open Space and Greenways Plan (2009)

Wake Forest grew along a relatively flat ridgetop separating two creeks: Smith and Richland. South Main Street (US 1-A) generally follows the ridgetop, the dividing line between watersheds. Like its terrain, travel in the community is dominant along a north-south axis; along the railroad, US 1, US 1-A, Ligon Mill Road, Forestville Road, and many minor roads. Major east-west travel follows NC 98, Durham Road, Wait Avenue, and Rogers Road.

The Open Space and Greenways report cites parcels and strategies to preserve land that together will form an interconnected "necklace of parks, recreation, and public open space". Travel on foot and bicycle are key elements of the Wake Forest transportation system and benefit from an intact network of greenways. Twin priorities in Phase One include a north-south corridor along Smith Creek and an east-west corridor along Wait Avenue and Durham Road. Together, these corridors will link downtown Wake Forest, the Seminary, the retail center at the intersection of Capital Boulevard and Durham Road, the Heritage neighborhoods, and residents in-between. The town was advised to pursue 80 percent grant funding from the U.S. Department of Transportation (Enhancement Funds), various State environmental resource agencies, and general obligation bonds passed in 2000 by the voters of Wake County to acquire open space.



Wake Forest Pedestrian Plan (2006)

The following framework was approved as an implementation strategy:

- Use the base of pedestrians to expand the awareness of the benefits of a walkable community.
- Expand and modify the existing pedestrian route network to a comprehensive, connected, safe system so it better meets the needs of the community, provides access to all, and enhances the current transportation infrastructure.
- Begin making the critical connections between destination points that will allow for continuous growth of, and improvement in, the pedestrian transportation network.

These three steps represent the core of the *Pedestrian Plan* implementation strategy. As individual policy and physical recommendations are addressed, each should fit with one of these three primary strategies. Priority pedestrian corridors are listed in *The Recommended Plan* section of this report (**Chapter 5**) and shown in **Figure 2.2**.

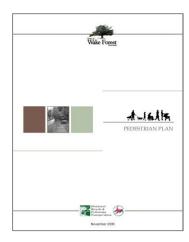
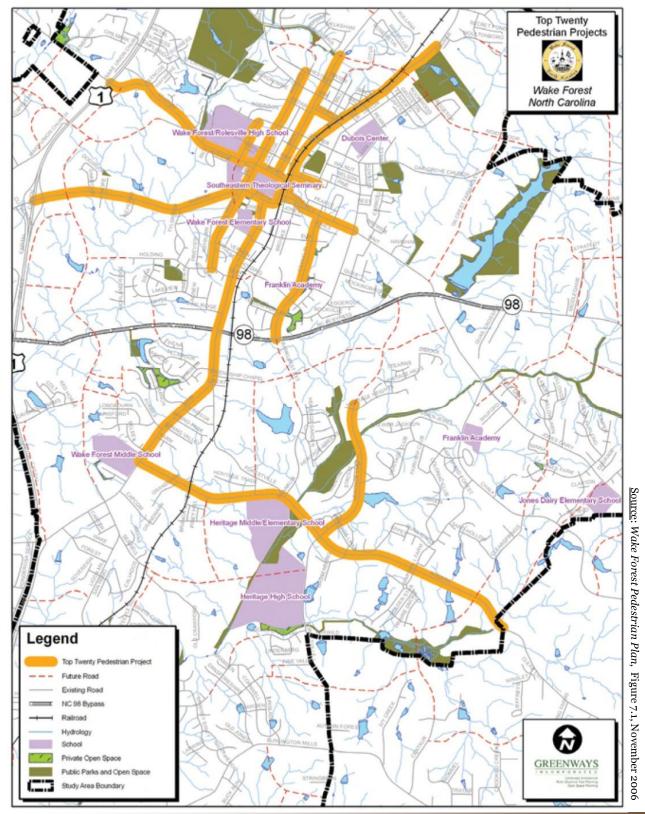


Figure 2.2 – *Wake Forest Pedestrian Plan* Priority Pedestrian Corridors



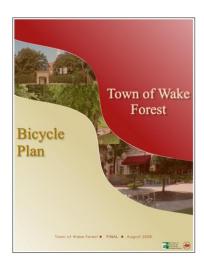


In February 2009, the Greenway Advisory Board recommended the following 5 priority goals.

- 1. Construct trails starting with Dunn Creek, Neuse River Bridge and trails to it, and Reservoir Trail.
- 2. Finalize Open Space & Greenway Plan Update
- Greenway funding recommendations for the 2009 Town budget and Capital Improvement Plan.
- 4. Identify areas for type 1, 2 & 3 greenways, and fine tune argument for implementation of these types.
- 5. Long-range strategy for trail construction and greenway acquisitions with a spreadsheet status/priority list coordinated with maps.

The Greenway Advisory Board also recommended to the Wake Forest Board of Commissioners that all of the following priorities be funded to bring the community together with an interconnected system of sidewalks:

- Wait Avenue: North Allen Road to Dr. Calvin Jones Highway (NC 98 Bypass)
- Stadium Drive: North Wingate Street to US 1
- Rogers Road: Forestville Road to South Main Street
- Oak Avenue: Harris Road to North Main Street
- Heritage Lake Road, west side: Rogers Road to Soccer Center
- Forestville Road: Rogers Road to Song Sparrow Drive
- Durham Road: Retail Drive to North Wingate Street
- S Wingate Street: West Holding Avenue to Stadium Drive
- Ligon Mill Road: Song Sparrow Drive to South Main Street
- Rogers Road: Marshall Farm Road to Forestville Road
- South Main Street: Dr. Calvin Jones Highway to Rogers Road



Wake Forest Bicycle Plan (2008)

Short distances between destinations, conveniently located public schools, climate, and topography are favorable factors for riding bicycles in Wake Forest. The small town appeal of Wake Forest suggests that discretionary trips (e.g. shopping, school, social, recreational) may be a good target market. Preliminary survey results and stakeholder input indicate residents do not feel comfortable cycling in town except on a few residential streets. A self-selected citizen survey conducted in 2006 received 193 responses. Of those respondents, 82% had ridden a bicycle in the last six months, usually on weekends. Most respondents indicated they ride for recreation, exercise, and a family event. Top destinations included the park, neighborhood, and into town.

Nearly all respondents indicated they would like to ride more, and most indicated they would ride more if there were more clearly marked trails, better places to which to ride, wider roads, and better and safer road conditions. All survey respondents indicated they would like to see more greenways in the Town, and 95 percent indicated they would like to see more bike lanes.

Survey results indicated the following locations for future greenways:

- Connections from one neighborhood to another
- From neighborhoods to downtown, parks, and schools
- From downtown to the "Factory" on South Main Street and from downtown to Capital Boulevard
- Around parks, especially Flaherty Park
- Connections to the Raleigh greenway system and the Falls Lake Trail

Respondents also suggested the following locations for future bike lanes:

- Burlington Mills Road
- Durham Road
- Franklin Street*
- Jenkins Road
- Jones Dairy Road
- Ligon Mill Road
- Purnell Road
- Rogers Road

- Star Road (frontage road parallel to Capital Boulevard)
- South Main Street
- Stadium Drive
- Thompson Mill Road
- Wait Avenue
- Wake Union Church Road

^{*} Bike lanes are now provided on Franklin Street



Note that not all of the roads listed above are recommended for widening, so bike lanes are not necessarily recommended either, due to the scarcity of state and federal transportation funds.

Sixty-two percent (62%) of respondents felt that Wake Forest needs more bike parking. Recommended locations for bike racks include the following areas: downtown, parks, shopping areas, schools, libraries, at trail heads, in parking areas, and at public gathering places.

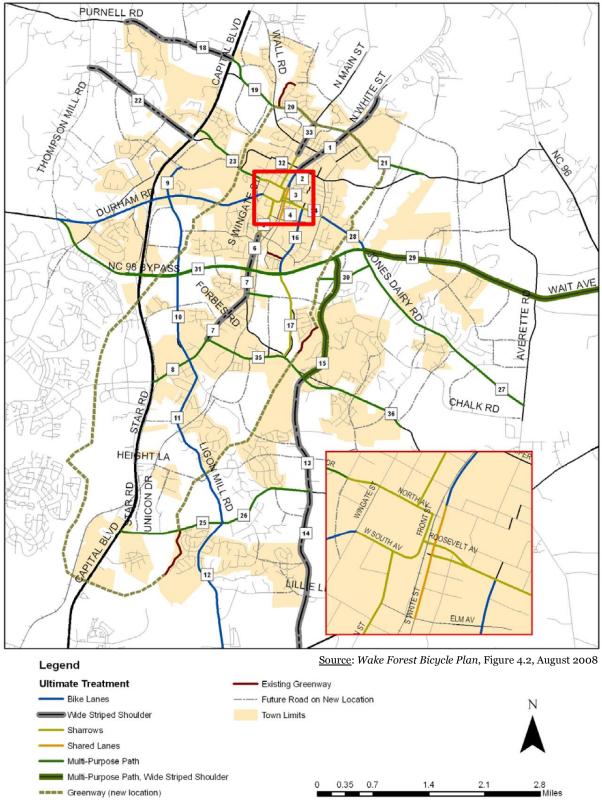
Many comments indicated Wake Forest needs safer bicycling routes to schools, parks, tennis courts, and shopping centers. Respondents often discussed their wish to ride with their children, but they felt that they were unable to because the roads were too dangerous. These statements, along with a demand for connections to Raleigh's greenway and bicycle system, are fairly consistent with the issues identified by the Stakeholder Committee that the Town needs an improved and safer cycling network for children.

The major conclusions drawn from the survey results are as follows:

- Recommendations in the Plan should work to increase cyclist's safety and comfort on existing roadways. This also will attract more cyclists to ride in Wake Forest.
- The Plan should emphasize building more greenways as a way to promote family-friendly cycling in Wake Forest.
- Major roads that should be improved include: Main Street, Forestville Road, Ligon Mill Road, and Durham Road.

Specific recommendations from the Bicycle Plan are presented in *The Recommended Plan* section of this report (**Chapter 5**) and on **Figure 2.3**.

Figure 2.3 – Wake Forest Bicycle Plan – Recommendations Map





NC Transportation Improvement Program 2009-2015

The Transportation Improvement Program (TIP) provides a financially constrained list of the most immediate priority transportation improvements for an area. The seven-year document adopted by the North Carolina Board of Transportation includes provisions for highway, bicycle, pedestrian, rail, and public transportation projects. The statewide TIP contains funding information and schedules for multiple transportation divisions including highways, aviation, enhancements, public transportation, rail, bicycle and pedestrians, and the Governor's Highway Safety Program.

Actual implementation schedules are subject to the readiness of projects including securing necessary permits and the timeliness of construction contractors. Projects of interest to Wake Forest in the current TIP are summarized in **Table B.1 in Appendix B**.

SIP 2009-2015 JUNE 2008

Metropolitan Transportation Improvement Program

The Capital Area Metropolitan Planning Organization (CAMPO) includes elected and staff representatives from the Town of Wake Forest and all other municipalities in Wake County plus portions of Franklin, Granville, Johnston, and Harnett counties. A consensus-list of projects is prepared and submitted to NCDOT for consideration in allocating state and federal transportation funds in the State TIP. The Wake Forest request for 2011-2015 include:

- Widen South Main Street to three lanes from Forbes Road north to Forestville Road, a half-mile stretch that is the main gateway from the south into Wake Forest. It is operating at capacity and has numerous driveways and street entrances. Backups frequently occur and there have been rear-end collisions. The construction of a center turn lane with curb, sidewalk and bicycle lanes will increase safety and improve capacity. Design and right-of-way acquisition are substantially complete. This project currently ranks 12th on the MPO priority list and it's also on the STIP. An estimate of cost (STIP) is \$10.4 million.
- Widen and extend Ligon Mill Road between South Main Street and Dr. Calvin Jones Highway, a distance of 0.40 miles, to provide a multi-lane section with bike lanes at a cost of \$2.7 million. This project ranks 20th on the MPO priority list.
- Interchange and roadway improvements to US 1 from Gresham Lake Road to Burlington Mill Road. This is a joint request of the US 1 Council of Planning members.
- Replace obsolete and deficient bridges on the following statemaintained secondary roads:

- Rogers Road over Smith Creek the bridge is a traffic bottleneck because it is only two lanes wide, but needs to be five lanes wide. An estimate of cost is \$700,000.
- Forestville Road over Sanford Creek. An estimate of cost is \$1.2 million.
- Ligon Mill Road over Smith Creek. An estimate of cost is \$1.3 million.
- o Oak Avenue / Harris Road over Richland Creek. An estimate of cost is \$800,000.

Other projects prioritized by the Town of Wake Forest for the 2009-2015 Metropolitan Transportation Improvement Program include:

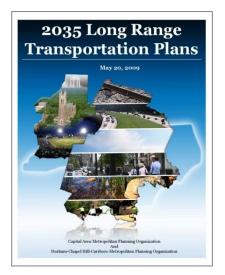
- Northside Loop
- South Franklin Street Extension
- Burlington Mills Road Widening
- Bicycle lanes on South Main Street (US1A)
- Wake Forest Bypass Greenway (MTIP # E-4708)
- Flaherty Park Greenway



The Metropolitan 2035 Long Range Transportation Plan seeks to preserve the infrastructure, improve safety, provide system connectivity, improve mobility, increase access, protect air quality, and support economic growth in Wake County and adjacent areas. Projects must be listed in the Long Range Transportation Plan in order to receive state and federal transportation funding through the North Carolina State Transportation Improvement Program (STIP). The cost of the program must fit anticipated revenue to create a fiscally-constrained plan. From 2009 through 2035, the CAMPO area (all of Wake County plus portions of adjoining counties except Durham and Orange), expects to receive \$10 billion divided as follows by mode of travel:

- Non-toll roads (including pedestrian and bicycle facilities) = \$5.4 billion
- Toll road subsidies = \$1.6 billion
- Passenger rail = \$1.6 billion
- Bus transit = \$1.6 billion

Additional passenger rail funds have been requested from the federal government for high-speed intercity passenger rail service enhancements between Raleigh and Petersburg, Virginia. Wake Forest projects included in the fiscally-constrained plan are shown in **Table 2.1**:





| Table 2.1 – Wake Forest LRTP Projects | | |
|---------------------------------------|--|----------------|
| Year | Project Description | Cost |
| 2015 | South Main St — widen between Forbes Rd and Rogers Rd | \$1.7 million |
| 2015 | US 401 Rolesville Bypass — complete bypass and widen to Louisburg | \$81 million |
| 2025 | Heritage Lake Rd — widen and extend to Rogers Rd | \$7.1 million |
| 2025 | $ Ligon\ Mill\ Rd-widen\ to\ 3\ lanes\ south\ of\ South\ Main\ St\ and\ build\ 4\ lanes\ median-divided\ north\ to\ Stadium\ Dr$ | \$31.5 million |
| 2025 | Franklin St — extend to Rogers Rd | \$11 million |
| 2035 | Forestville Rd — widen south of Rogers Rd to Horton Rd | \$83.2 million |
| 2035 | US 1 — upgrade to an 8-lane freeway between I-540 and Burlington Mills Rd with interchanges at Durant Rd and Burlington Mills Rd | \$143 million |

Special Transit Advisory Commission (STAC) Plan

The Special Transit Advisory Commission (STAC) was formed through a cooperative regional effort to recommend a plan for major transit investments throughout the Triangle area. The Commission met in 2007 and 2008 and formulated recommendations contained in a final report entitled "Regional Transit Vision Plan: Recommendations for North Carolina's Research Triangle Region". These recommendations are included in the Long Range Transportation Plan as numerous bus service enhancements (**Figure 2.4**) and rail investments (**Figure 2.5**).

Rail service is envisioned as electric powered light rail transit and diesel-powered commuter rail service. Light rail would be provided by 2035 from downtown Durham through RTP, Cary, NC State University, downtown Raleigh and then along the CSX rail corridor parallel to US 1 as far north as Durant Road. Wake Forest passengers would change trains and connect to diesel-powered commuter rail trains taking them to Wake Forest. Station locations in Wake Forest have not been identified. The frequency of commuter trains to and from Wake Forest would be limited to perhaps four in the morning and four in the afternoon. The commuter trains likely would extend south of Durant Road to downtown Raleigh.

Analysis conducted for the Town of Wake Forest and CAMPO (during the US 1 Corridor Study) concluded limited rail right-of-way (only 80 feet wide) in the CSX corridor through downtown Wake Forest combined with the need for additional tracks adjacent to the current freight tracks precludes extending regional rail service to downtown Wake Forest without significant loss of property. Therefore, terminating regional passenger rail service south of downtown Wake Forest should be considered, ideally in the vicinity of Dr. Calvin Jones Highway crossing of the CSX corridor. At this location, some provision for park-and-ride as well as fixed-route bus access and circulation should be provided. A second regional rail station in the corridor should be developed in the vicinity of the US 1 and Burlington Mills Road intersection. At this location, CSX tracks are close to US 1 and highway traffic from the north easily can be diverted to a park-and-ride serving a regional rail station at this location.

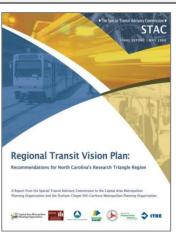
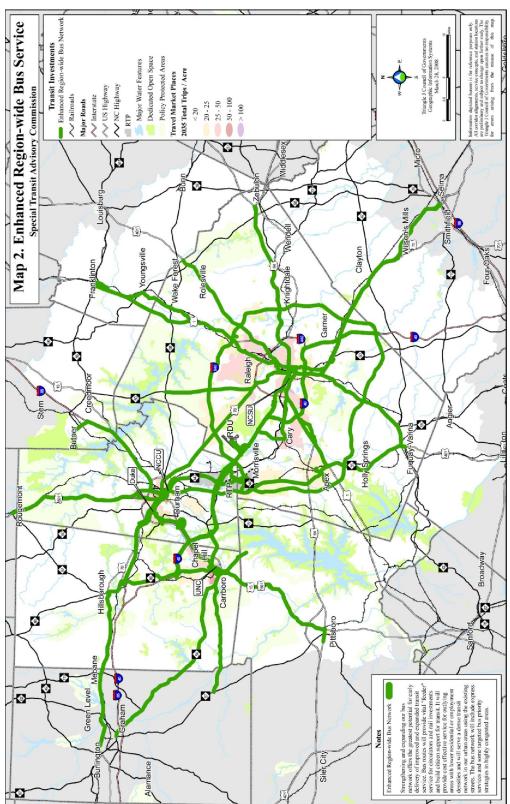


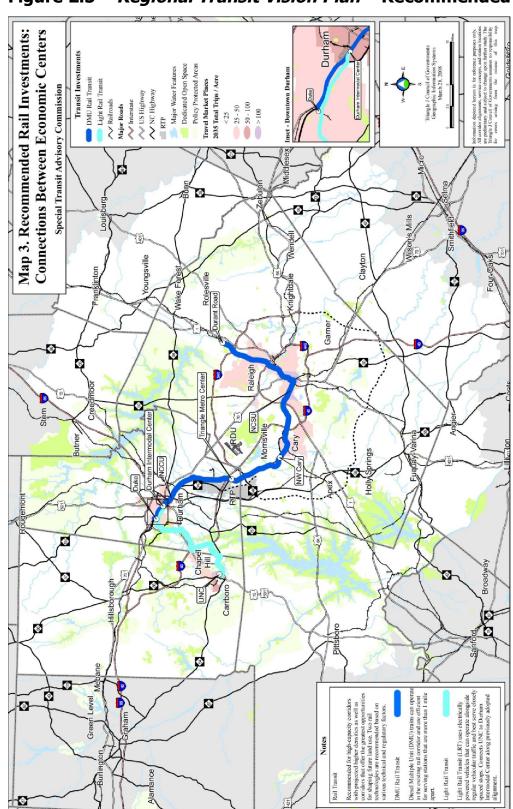
Figure 2.4 - Regional Transit Vision Plan - Enhanced Region-wide Bus Service



Source: Regional Transit Vision Plan, Map 2, May 2008



Figure 2.5 – Regional Transit Vision Plan – Recommended Rail Investments



 $\underline{\underline{Source}} \hbox{:} \textit{Regional Transit Vision Plan}, \\ \underline{Map \ 3}, \underline{May \ 2008}$



Southeast High-Speed Rail (SEHSR) Initiative

High-speed rail initiatives throughout the nation have received added support through the American Recover and Reinvestment Act of 2009. Fortunately, a coalition that includes North Carolina and Virginia has been planning at a detailed level for a decade or more. With tremendous economic and population growth, the Southeast will benefit from high-speed rail service to provide business and leisure travelers with a competitive alternative to air and auto for trips between 100 and 500 miles. High speed rail in the southeast will reach top speeds of 110 mph and average speeds between 85-87 mph.

Virginia, North Carolina, South Carolina, and Georgia have joined the business communities in each state to form a coalition to plan, develop, and implement high speed rail in the Southeast. The system will be developed incrementally by upgrading existing rail rights-of-way. Rail stations are planned for cities that currently have AMTRAK stations. The station closest to Wake Forest will be in downtown Raleigh. Existing bus service between downtown Wake Forest and downtown Raleigh should be modified to include a stop at the rail station. A workshop to discuss the SEHSR initiative was held June 4, 2009 at the Wake County Northern Regional Center on Holding Avenue. Visit www.sehsr.org for more information.

The Town of Wake Forest provided the Southeast High-Speed Rail Commission with comments on their draft environmental report. These comments included:

- Bridge work to accommodate SEHSR should anticipate future TTA rail, future road widening, and sidewalk needs.
- Acceptable closures include Brick Street, East Cedar Avenue (already closed), and Forestville Road (already closed).
- Unacceptable closures include Friendship Chapel Road, Seawell Drive, Height Lane/Unicorn Drive, and US 1 service road extension.
- Favor sealed crossings instead of closure at East Elm Street and Northside Loop.
- Favor bridge over realigned East Holding Avenue

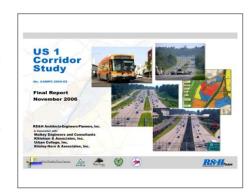
These issues and more detailed plans are to be addressed by the Commission. Their schedule is to hold public hearings in 2010 and finalize the environmental document late in 2010. Permits would be obtained in 2011 followed by construction and inaugural service.

The growth strategies map (**Figure 2.1**), developed with the Comprehensive Plan Update, shows two potential rail stations to serve Wake Forest. The northernmost location is shown east of the railroad between Dr. Calvin Jones Highway and Friendship Chapel Road. The other location is in the Riverplace Commerce Center near Circle Drive and Capital Boulevard (US 1).



US 1 Corridor Study (2006)

Capital Boulevard (US 1) is a critically important corridor in Wake Forest and in Wake and Franklin Counties. Population and employment growth has occurred without major capacity increases on US 1 so the Capital Area Metropolitan Planning Organization and NC Department of Transportation funded a study. A proactive public involvement program provided opportunities for the public, stakeholders, and interest groups to participate in the investigation of corridor alternatives and ultimately provided guidance in forming the locally preferred alternative. The report is available at www.ncdot.org/projects/US1corridor.



Corridor Dynamics

The US 1 study corridor extended 14 miles from just south of I-540 through Wake Forest to the Park Avenue (US 1A) intersection in Franklin County. The towns of Wake Forest, Franklinton and Youngsville participated in the study, as did the City of Raleigh, Wake County, CAMPO, and NCDOT. US 1 is a major four-lane divided highway within the study area with interchanges at I-540, NC 98, and Durham Road. The right-of-way varies between 200 and 450 feet; however, the majority is 200 feet wide. Some non-continuous two-way frontage roads exist in the corridor. The median is generally 30 feet wide. When the study began, 13 signalized intersections and more than 100 access points existed along US 1 in the study area.

Year 2005 traffic counts provided by NCDOT and the City of Raleigh indicated traffic demand either approaches or exceeds roadway capacity (Level of Service E or F) during peak hours on US 1 between Gresham Lake Road and South Main Street (US 1A South). The section of US 1 between South Main Street in Wake Forest and the entrance to Sprint Headquarters in Franklin County has four travel lanes, lower traffic volumes, and greater signal spacing. This section functions at Level of Service D. Crash histories from 2002 through 2004 show an average of one crash per day in the corridor. The section between Durham Road and Stadium Drive had a crash rate 16% higher than the statewide average for similar types of highways. Most crashes (57%) were left-turn, right-turn, or angle crashes, with the next highest (31%) type being rear-end crashes. No other section of US 1 in Wake Forest exceeded the statewide average crash rate.

Locally Preferred Alternative — Overview

The "locally preferred alternative" requires a typical right-of-way of 350 feet and will accommodate projected 2030 travel demand south of South Main Street. This alternative was supported by 45 percent of citizens who

attended a public workshop on either of two consecutive evenings in July 2006. No other alternative received more than 25 percent level of support. The locally preferred alternative includes:

- Three general-purpose lanes in each direction from I-540 to US 1A North, Franklin County, plus auxiliary lanes where appropriate
- Either one special use high-occupancy vehicle (HOV) lane or one additional general purpose lane in each direction from I-540 to Durham Road
- Two-way, three lane frontage roads paralleling US 1 or backage roads in each direction to provide access to adjacent properties
- Sufficient right-of-way to accommodate an ultimate eight-lane freeway facility, three-lane frontage roads and raised landscaped planting beds
- Ten interchanges (three of which exist now) at major cross-streets
- Nine grade separations (two of which exist now) to provide east-west multimodal connectivity
- Wide outside traffic lanes for shared motorized vehicles and cyclist use for the proposed frontage and backage roads
- Sidewalks along the frontage or backage roads, adjacent to the development
- Park and ride lots and transit stops along the frontage or backage roads

Locally Preferred Alternative — Transit Accommodations

The locally preferred alternative for transit in the US 1 corridor focuses on the initial development of limited premium bus service (in the form of commuter bus service) to downtown Raleigh and the Research Triangle Park. As development density increases in the US 1 corridor over time, the commuter bus service could be transformed into more of a bus rapid transit operation, still with limited stops given the conversion of US 1 to a freeway facility south of NC 98, but with improved service frequency and hours of operation. Over time, added fixed-route bus service on cross streets in the US 1 corridor would be provided as development density increases and the street network develops. Continued paratransit service will be provided to serve lower density areas and to serve the elderly and handicapped that can't use regular fixed-route service. The plan calls for the development of key transit stations along the US 1 corridor south of NC 98, with smaller park-and-ride facilities developed initially to support the commuter bus service and to encourage added formation of carpools and vanpools. With development increases in the future, these park-andrides would be expanded as needed, potentially becoming structured facilities perhaps tied to adjoining transit-oriented development.



In the long-term, the configuration of the transit system in the US 1 corridor will be influenced by whether or not regional rail is extended into the corridor. If regional rail is extended north of Spring Forest Road, a logical terminus would be at Dr. Calvin Jones Highway on the south side of Wake Forest, with an intermediate station at Burlington Mills Road to intercept US 1 traffic from the north. With regional rail service, the bus service along US 1 should be viewed as a support service to regional rail, serving areas between the regional rail stations, with greater service frequency and hours of operation. This could take the form of bus rapid transit service along US 1 and/or local bus service on the US 1 frontage roads. These proposed transit improvements should be coupled together with the highway conversion to a freeway.

Locally Preferred Alternative — Funding and Implementation

The cost of the locally preferred alternative in 2006 dollars was \$487 million (\$35 million per mile) —\$383 million for construction and \$104 million in right-of-way acquisition. A total of 296 acres and 37 parcels would need to be acquired, and a total of 343 parcels would be affected.

The planning process focused on ensuring that the US 1 corridor would accommodate multiple modes of transportation and a set of land uses that would enable people and goods to move through the corridor efficiently. The following implementation sequence was proposed:

- Adoption by the Capital Area MPO Transportation Advisory Committee
- Local jurisdictions execute the Memorandum of Understanding
- NCDOT manage access, traffic signal systems and traveler information
- NCDOT prepare schematic designs and environmental documentation
- TTA and CAT conduct transit planning
- NCDOT prepare design plans, specifications, and cost estimates
- NCDOT oversee construction

Interim measures to support ongoing land development in the US 1 corridor that desire access are reviewed by NCDOT. Recent decisions by NCDOT require a high degree of consistency with the ultimate corridor vision. For example, recent requests by developers to convert US 1 at Starr Road into a super street have been denied by NCDOT Access Management Committee because the site plan did not illustrate how the super street would fit with the ultimate CAMPO plan for US 1. The developer can resubmit a revised site plan with appropriate changes. Interim measures assume the following:

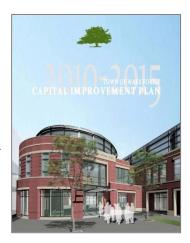
TRANSPORTATION PLAN UPDATE

- No direct access to US 1 unless no other reasonable and feasible options exist. If direct US 1 access must be provided, agreements should be negotiated for future closure dependent on provision of alternate access via frontage or backage roads.
- Preserve and, if possible, dedicate future right-of-way for the full corridor section including frontage roads and interchange ramps. CAMPO, NCDOT, Raleigh, and Wake Forest should collaborate on design drawings that will pin-down ultimate right-of-way lines on a map.
- Preserve corridors for future overpasses with sufficient width to provide full sections that include facilities for pedestrians and bicyclists.
- Protect and, if possible, acquire land for future rail stations. Consider interim use as park-and-ride lots for the WFX and Circulator bus routes.
- Extend and interconnect frontage and backage roads to systematically close unsignalized median openings on US 1. Put a priority on median openings that carry more truck traffic to keep trucks out of the inner travel lanes.
- Synchronize traffic signals.
- Convert uncontrolled median openings into paired leftovers with nearby provision for increased U-turn movements. Installation of traffic signals at the U-turn intersections likely will not be approved by NCDOT.
- Through a Memorandum of Understanding, the Town of Wake Forest, City of Raleigh, CAMPO and NCDOT formed the US 1 Council of Planning. The Council serves as an advisory group and meets periodically to:
 - 1. Review all land use developments and transportation projects of regional significance, working in tandem with the NCDOT District Engineer. [The term "regional significance" in the Memorandum of Understanding refers to land-use and highway projects that will have a major impact on congestion and travel movements (i.e. interchange construction, "big box" retail, single-family subdivisions of or above one-hundred lots, etc].
 - 2. Review changes to the US-1 Corridor Plan, and coordinate community involvement activities when necessary to ensure the integrity of the Plan.
 - 3. Develop and/or update a Land Use Plan that covers the corridor which shall include but is not limited to: (a) proposed land uses along the corridor which are consistent and compatible with the transportation recommendations (b) a local collector road plan, and (c) a series of best practice access management and development standards.



Wake Forest Town CIP 2009-2013

The Capital Improvements Plan (CIP) is a five year plan that identifies the Town's capital outlay and improvement needs. It reflects the Town's policy regarding long range physical and economic development, outlines present and future public needs and priorities, and provides a planned schedule for improvements. In this instance, a capital improvement is defined as any expenditure for equipment, buildings, infrastructure, land acquisition, plan, or project in which the cost exceeds \$10,000 and the estimated useful life is greater than 1 year. The Town of Wake Forest 2010-11 CIP is approximately \$12.4 million.



Planning capital projects is an ongoing process with updates to the CIP occurring every year. Once the need or idea for capital improvements is proposed by the Mayor, Board, Citizens or Town staff, these items are compiled into the CIP and presented to the Board of Commissioners. The Board prioritizes the first-year expenditures during a series of work sessions. Once approved, the CIP officially details the Town's commitment to fund the expenditures in the upcoming budget. The first-year projects are refined during the annual budget process.

Given shifting needs and priorities, unexpected emergencies, cost adjustments, and improved technology, the required annual update to the CIP makes sense. The annual review of capital outlay and improvement needs ensures the financial strength of the Town is not compromised. Since 1985, the Town of Wake Forest has updated its CIP each year based on a keen understanding of local needs and priorities. Today, the CIP achieves the following objectives as a component of the Town's budget and financial planning process:

- Reduces the need for "crash programs" to finance the construction of Town facilities.
- Focuses attention on community goals, needs and capabilities.
- Achieves optimum use of taxpayer dollars.
- Guides future community growth and development.
- Advance planning ensures that projects are well thought out in advance of construction.
- Provides for the orderly replacement of capital expenditures.
- Encourages a more efficient governmental administration as well as maintains a sound and stable financial program.

The current CIP covers the five fiscal years 2010-11 through 2014-15 and includes a description of the prioritization system, a summary by funding level for the fiscal year 2010-11, and a summary by department/division and fund for each of the five fiscal years. The CIP includes a prioritization system that combines a measure of priority with four criteria categories. The system was developed because all requests for funding cannot be granted in a given year. Highlights from the top two priority levels include:

<u>Priority Level "A"</u> (highest consideration for funding): Total \$8.8 million

- Downtown Streetscape \$1,965,000
- Greenways and Bike Paths \$381,000
- Chalks Road Realignment \$1,650,000
- Unpaved Roads \$262,500
- Street Resurfacing/Maintenance \$2,000,000
- Pedestrian Plan-Top 10 Priority \$995,000
- Safe Route to School Sidewalks (grant) \$300,000
- Bus Service and Shelters \$239,000

<u>Priority Level "B"</u> (moderate consideration for funding): Total \$3.2 million

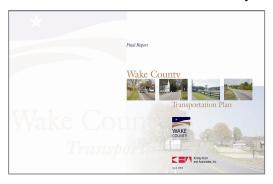
- Juniper Avenue Sidewalk \$500,000
- Gateway Landscaping \$60,000
- Jones Diary Road Bridge \$350,000

Wake County Transportation Plan (2003) (unincorporated areas)

The *Wake County Transportation Plan* was completed in April 2003 and addresses mobility needs in the county's unincorporated areas. The plan initially was expected to plan future collector streets but grew to encompass



- Ligon Mill Road south of Wake Forest: 3 lanes with wide outside lanes
- Forestville Road south of Wake Forest: 4 lanes, mediandivided with wide outside lanes





- Burlington Mills Road east of Forestville Road: 3-lane with wide outside lanes
- Rogers Road between Rolesville and Wake Forest: 3 lanes with wide outside lanes
- Chalk Road: 2 lanes
- Jones Dairy Road between Rolesville and Wake Forest: 3 lanes with wide outside lanes
- Averette Road south of NC 98: 2 lanes undivided
- NC 98 east of Wake Forest: 4 lanes, median-divided with wide outside lanes
- Purnell Road between US 1 and Jackson Rd: 2 lanes undivided
- Purnell Road west of Jackson Rd: 3 lanes with wide outside lanes
- Jenkins Road west of US 1: 2 lanes undivided with multi-use path on one side
- Thompson Mill Rd north of NC 98: 3 lanes with wide outside lanes and multi-use path on east side between Jenkins and Purnell Roads
- NC 98 west of Thompson Mill Rd: 4 lanes, median-divided with paved shoulders

"Imagine Rolesville" Transportation Plan (2002)

Through the 2002 Imagine Rolesville Transportation Plan, the Town of Rolesville adopted design criteria, a thoroughfare plan, and renderings as way to manage growth in the town and surrounding areas. Recommendations for corridors that link Rolesville and Wake Forest include:

- Upgrade West Young Street to 3 lanes: Main Street to Jones Dairy Road
- Upgrade Rogers Road between Rolesville and Wake Forest as follows:
 - Jeffreys Lane to Wellspring Farms Lane: two lanes with left-turn lanes at key intersections in a 90-foot wide rightof-way with ditch sections, a sidewalk behind the ditch on one side and a ten-foot multi-use path on the other side.
 - Wellspring Farms Lane to Main Street in Rolesville: five lanes in a 90 to 100 foot wide right-of-way with curb and gutter sections and sidewalk on both sides.
- Upgrade Forestville Road and link to Jones Dairy Road north of Sanford Creek to serve as a western bypass (of downtown Rolesville)
- Work with Triangle Transit and Wake County Transportation Services to provide transit service linking Rolesville to other communities when demand warrants

Youngsville Plan / DOT Transportation Plan

Youngsville is one area of focus for an update of the Comprehensive Transportation Plan (CTP) underway by the **N**orth Carolina Department of Transportation. The Franklin County CTP process is expected to continue until its scheduled adoption in Summer 2010. At this time, NCDOT has developed working drafts of CTP maps for highways, bikeways, and public transportation. The working draft highway map shows "needs improvement" on the US 1 and NC 98 but no other roadways linking Franklin County with Wake Forest. The US 1 corridor in southern Franklin County is projected to exceed its existing four-lane capacity. Other north-south corridors linking Wake Forest with Franklin County are projected to be at capacity during peak periods in 2035.

The following future corridors are shown needing bicycle improvements according to the draft Franklin County CTP map.

- US 1 frontage/backage roads in both counties, per the US 1 Corridor Study report
- Richland creek (future) greenway extended to Youngsville vicinity
- US 1A (shown in CAMPO's draft CTP)
- Gilcrest Farm Road (in both counties)
- Moore's Pond Road (in Franklin County) connecting with Wait Avenue (Wake County)
- US 401

Franklin County Comprehensive Plan

Adopted in 2007, the Franklin County Plan relies on a 1990 Thoroughfare Plan adopted by the North Carolina Department of Transportation (NCDOT). The document states the County's intent to prepare an updated transportation plan. It goes on to state that "It will be difficult for NCDOT to keep construction projects on course with demand as fast as the county is experiencing growth. The improvements that are currently taking place to US 401 should greatly improve commutes from Franklin County to Raleigh. Franklin County specifically supports the construction of the following highway improvement projects:

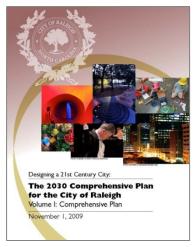
- NC 56 from Franklinton to Louisburg.
- US 401 from Louisburg to Rolesville.
- NC 96 Youngsville by-pass.





Raleigh Comprehensive Plan

"Planning Raleigh 2030" was adopted in 2009 as the official long range policy statement by formal resolution of the City Council. The Plan Framework provides an explanation of Comprehensive Plan goals, objectives, policies, and guidelines as well as a discussion of the urban form principals upon which the plan is based. The Systems Plans include goals and policies for public infrastructure systems such as the water and wastewater systems, stormwater management, parks and recreation, and transportation systems. An Economic Development Strategy as well as a Housing Plan and Historic Preservation Plan also are included in the Systems Plans.



For each of ten designated planning districts within the City of Raleigh jurisdiction there is a district plan that provides details on existing conditions including land use, zoning, and demographic projections. The system plans and urban form guidelines also are provided in greater detail for each district and include district based maps. Within defined areas of each planning district, detailed plans have been prepared to address specific issues such as in Corridor Plans along the major roadways entering Raleigh, Neighborhood Plans, Watershed Plans, and Small Area Plans. The Key Map to Plans provides an inventory and geographic location for specific plans within each planning district. The North and Northeast districts abut Wake Forest.

The City of Raleigh recognizes the importance of developing a balanced, efficient, multi-modal transportation network that minimizes impacts to the environment and reinforces the livability of neighborhoods. The Transportation Element is meant to guide future development of the City's roads and highways for motorized and non motorized transportation including public transit systems, bicycle and pedestrian networks. The transportation network is developed in a sustainable pattern that supports the City's future land uses and urban form, minimizes vehicle miles traveled and single occupancy vehicles, and reduces air pollution and greenhouse gas emissions. The Transportation Element contains policies that will create a well-connected, multi-modal transportation network, support increased densities, help walking become more practical for short trips, support bicycling for both short- and long-distance trips, improve transit to serve frequented destinations, conserve energy resources, reduce greenhouse gas emissions and air pollution, and do so while maintaining vehicular access and circulation. Achieving a balanced and effective

transportation system will require a greater investment in transit, pedestrian, and bicycle infrastructure. Detailed information concerning the underlying issues and background information can be found in the City of Raleigh Community Inventory Report.

The current classification system is deeply embedded in the transportation planning framework promoted by CAMPO and NCDOT, making wholesale changes difficult at present. As an alternative, the Raleigh Comprehensive Plan updates the traditional Thoroughfare Map and further applies a new system of street overlays as part of the Growth Framework Map. Four types of corridors are identified on the Urban Form Map: highway, multi-modal, urban, and parkway. These types have been applied to all existing and proposed streets in Raleigh classified as minor thoroughfares or higher. It modifies the existing thoroughfare map in the following ways:

- **Highways:** These are limited-access, grade separated roadways providing little to no direct access to adjacent land uses. Such streets are classified as primary arterials on the Thoroughfare Plan and no changes are proposed to how these are planned and developed.
- Multi-modal Streets: Transit and non-motorized modes are anticipated to provide a significant share of the total capacity of these streets, and the street right-of-way should be managed accordingly. Where bus is the transit mode, these streets should be targeted for improvements such as turn-out lanes, shelters and benches at every stop. Queue jump lanes, signal priorities, and exclusive lanes for transit may also be appropriate. Some transit streets may eventually convert to streetcar service, and for all such streets, a high level of pedestrian facilities and amenities should be provided. Land uses are expected to directly connect to and address the street. Bicycles should be accommodated. Alternative cross-sections may be employed to meet these goals.
- Urban Streets: These are like multi-modal streets but are not anticipated to have the same level of transit service. Urban streets can be narrower than other streets in the same classification, and should include on-street parking (where appropriate) and enhanced pedestrian facilities.
- Parkways: These streets are suburban in nature and more likely to be framed by landscaping rather than buildings. More traditional crosssections can be employed on these streets. Landscaped medians are encouraged.



Of interest to Wake Forest, the Raleigh Comprehensive Plan shows a future extension of Thornton Road – included as a collector street in the draft Plan. The extension would be built to the east of existing Thornton Road, as far as Forestville Road. Also of interest to Wake Forest is the adoption of the following preferred cross-sections for roads that connect the communities:

- Ligon Mill Road south of Wake Forest: Raleigh is planning a four-lane divided roadway, but city staff understand the complexity of obtaining sufficient right-of-way under constrained conditions that include single-family residential lots facing both sides of Ligon Mill Road. A strategy of showing Ligon Mill Road south of US 1A as a 2 or 3 lane road within a 100-foot right-of-way may allow for some flexibility in corridor planning in the future. If redevelopment occurs along Ligon Mill Road south of US 1A the plan would support acquiring the additional right-of-way.
- Forestville Road south of Wake Forest: Raleigh is planning a fourlane divided road.